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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,652	02/27/2004	John M. Wirtz	309.035	9155

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EXAMINER	
MCCLOUD, RENATA D	

ART UNIT	PAPER NUMBER
2837	

NOTIFICATION DATE	DELIVERY MODE
09/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

Office Action Summary

Application No.

10/789,652

Applicant(s)

WIRTZ ET AL.

Examiner

Renata McCloud

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "interior", "intermediate module disposed between and interconnecting the power module and the interface module" (see claim 20), "control module", "power unit", "interface unit", "intermediate unit", "power supply unit", and "control structure" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "control module", "power unit", "interface unit" (see claim 9, whereas the spec describes an interface module), "intermediate unit", and "power supply unit" (the spec refers to both a redundant power supply and a power supply), "control structure". There should be consistency between the claimed limitations and what is described in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al (US 6452349) in view of Schienbein et al (US20030036806) and Edelson (US 6922037)

Claim 1,9,17: Hahn et al teach a control system having modules, comprising: a drive module housing an AC drive (fig. 8:78); the AC drive (78) interconnecting a rotating machine (32) to a utility power source (fig. 1:70); a control module housing a control structure (fig. 8:23); a redundant power supply (48,25) operatively connected to the control structure (23) for supplying electrical power to the control structure; and an intermediate module (50/52/54) having a plurality of conductors interconnecting the control module (23) and the drive module (78) to allow the control module to transmit instructions there through. Hahn does not explicitly

recite that the control system is modular and that the modules have interiors. Schienbein et al teach a modular control system having modules (abstract). Edelson teaches modular modules have interiors (col. 12:32-13:7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Hahn et al to be modular as taught by Schienbein et al and Edelson in order to provide a universal system that may be used in different applications with easy maintenance, and also since it has been held that constructing a formerly integral structure in various elements and/or that making an old device portable or movable involves only routine skill in the art (see MPEP 2144.04 (V)).

Claim 2: Hahn et al teach the control structure includes a control circuit (23) operatively connected to the AC drive (78). Schienbein et al teach the control structure (10) includes a control circuit (Fig. 5:18) operatively connected to the AC drive (20) and a user interface (16).

Claim 3: Schienbein et al teach the intermediate module (40) houses a bypass circuit (par. 0037;0042) for interconnecting the AC motor to the utility power source in response to failure of the AC drive.

Claim 4: Schienbein et al teach the control circuit (18) is operatively connected to the bypass circuit (40;0037;0042;0070).

Claim 5: Schienbein et al teach the intermediate module (40) houses a disconnect circuit (0037;0042), the disconnect circuit disconnecting the AC drive from the power source in response to a user selected condition on the AC motor (16; par. 0070).

Claim 7: Hahn et al teach a power module (48,25) connectable to the control structure (23), the power module including a secondary power source (25,45). Schienbein et al teach a power module (14) selectively connectable to the control structure, the power module including a secondary power source (14).

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Claim 8: Hahn et al teach the redundant power supply (25) is in the control module (23). Schienbein et al teach a redundant supply (50).

Claims 10,18: Hahn et al teach the AC drive (78) having an input connectable to a power source (+12V) and an output connectable to a machine (32). Schienbein et al teach the AC drive having an input connectable to a power source (12) and an output connectable to a machine (0035; the inverter is connectable thru the converter).

Claims 11,19: Schienbein et al teach a user interface (Fig. 5:16) for allowing a user to program the control circuit.

Claims 13, 21: Schienbein et al teach the intermediate unit (40) includes a bypass circuit (40; par 0037;0042;0070) received with the interior of the intermediate unit and being connected in parallel with the AC drive (20), the bypass circuit interconnecting the AC motor to the power source in response to failure of the AC drive (0037;0042).

Claims 14,22: Schienbein et al teach the intermediate unit (40) includes a disconnect circuit (par. 0037;0042) received with the interior of the intermediate unit and being connected in series with the AC drive (20), the disconnect circuit disconnecting the AC drive from the power source in response to a predetermined condition (16; par. 0070).

Claim 15,23: Hahn et al teach a power supply unit (48,25) having a power supply selectively connectable to the control circuit (23) for providing electrical power to the control circuit independent of the power source. Schienbein et al teach a power supply unit (14) having a power supply selectively connectable to the control circuit (10) for providing electrical power to the control circuit independent of the power source.

Claim 16: Hahn et al teach a redundant supply (48,25) in the control module (23).

Claim 20: Hahn et al teach an intermediate module (50/52/54) connecting the power module (78) and the control module (23). Edelson teach modules having interiors (col. 12:32-13:7).

5. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al Schienbein et al and Edelson as applied to claims 1,9 above, and further in view of Gupta.

Claims 6, 12: Hahn et al Schienbein et al and Edelson teach the limitations of claims 1 and 9. Referring to claims 6 and 12, Schienbein et al teach a display (par. 0070). They do not teach a keypad. Gupta et al teach a keypad and a display (col. 7:10-19). IT would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Hahn et al Schienbein et al and Edelson to have a keypad as taught by Gupta in order to allow a user to control the controller.

Response to Arguments

6. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments with respect to the objections, the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). There should be consistency between the claim language and the specification. The detailed description does not describe the limitations mentioned in the objections above.

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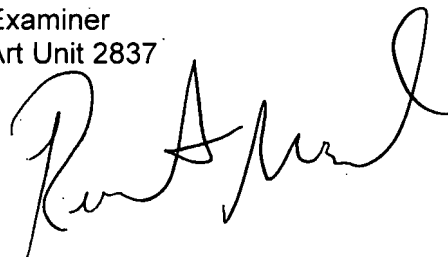
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 5:30 am - 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 ext. 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Renata McCloud
Examiner
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A handwritten signature in black ink, appearing to read 'Renata McCloud', written over the printed name and title.

rdm